Farm Use of Antibiotics Defies Scrutiny
By SABRINA TAVERNISE

The numbers released quietly by the federal government this year were alarming. A ferocious germ resistant to many types of antibiotics had increased tenfold on chicken breasts, the most commonly eaten meat on the nation’s dinner tables.

But instead of a learning from a broad national inquiry into a troubling trend, scientists said they were stymied by a lack of the most basic element of research: solid data.

Eighty percent of the antibiotics sold in the United States goes to chicken, pigs, cows and other animals that people eat, yet producers of meat and poultry are not required to report how they use the drugs — which ones, on what types of animal, and in what quantities. This dearth of information makes it difficult to document the precise relationship between routine antibiotic use in animals and antibiotic-resistant infections in people, scientists say.

Advocates contend that there is already overwhelming epidemiological evidence linking the two, something that even the Food and Drug Administration has acknowledged, and that further study, while useful for science, is not essential for decision making. “At some point the available science can be used in making policy decisions,” said Gail Hansen, an epidemiologist who works for Pew Charitable Trusts, which advocates against overuse of antibiotics.

But scientists say the blank spots in data collection are a serious handicap in taking on powerful producers of poultry and meat who claim the link does not exist.

“It’s like facing off against a major public health crisis with one hand tied behind our backs,” said Keeve Nachman, an environmental health scientist at the Johns Hopkins Center for a Livable Future, which does research on food systems.

Antibiotics are considered the crown jewels of modern medicine. They have transformed health by stopping infections since they went into broad use after World War II. But many scientists say that their effectiveness is being eroded by indiscriminate use, both to treat infections in people and to encourage growth in chickens, turkeys, cows and pigs.

Whatever the cause, resistant bacteria pose significant public health risks. Routine infections once treated with penicillin pills now require hospitalizations and intravenous drip antibiotics,
said Cecilia Di Pentima, director of clinical services at the Infectious Diseases Division at Vanderbilt University’s Department of Pediatrics. Infections from such strains of bacteria are believed to cause thousands of deaths a year.

“The single biggest problem we face in infectious disease today is the rapid growth of resistance to antibiotics,” said Glenn Morris, director of the Emerging Pathogens Institute at the University of Florida. “Human use contributes to that, but use in animals clearly has a part too.”

The Food and Drug Administration has tried in fits and starts to regulate the use of antibiotics in animals sold for food. Most recently it restricted the use of cephalosporins in animals — the most common antibiotics prescribed to treat pneumonia, strep throat and urinary tract infections in people.

But advocates say the agency is afraid to use its authority. In 1977, the F.D.A. announced that it would begin banning some agricultural uses of antibiotics. The House and Senate appropriations committees — dominated by agricultural interests — passed resolutions against any such bans, and the agency retreated.

Antibiotic use in people can be closely monitored through the vast infrastructure of the nation’s health care system, but there is no equivalent for animals, making it harder to track use on farms and ranches, said William Flynn, the deputy director for science policy at the F.D.A. Center for Veterinary Medicine.

Many drugs are sold freely over the counter through feed suppliers, something the agency is trying to curb. In April, it proposed eliminating the use of certain antibiotics to stimulate growth in animals, and requiring meat and poultry producers to obtain a prescription before giving certain antibiotics to their animals. The agency just finished taking public comments to update the requirement. The scale of the problem became clear in 2010 when the F.D.A. began publishing total pharmaceutical company sales of antibiotics for use in animals raised for human consumption. It turned out that an overwhelming majority of antibiotics produced went to animals, not people. But there is still a glaring lack of information about how the drugs are used, scientists say.

The one set of data that is regularly released — a measure of antibiotic-resistant bacteria carried by meat and poultry — contains such small samples that most scientists say they are reluctant to rely on it.

The dramatic rise in the presence of salmonella on chicken breasts that was resistant to five or more classes of antibiotics, for example, was based on samples from just 171 breasts, an
infinitesimal fraction of the more than eight billion birds raised and sold as food in the United States every year.

Another problem is that regulatory responsibility is fractured. The F.D.A. regulates drugs, but agriculture is the purview of the federal Department of Agriculture. The Centers for Disease Control and Prevention also has a role.

“There’s nobody in charge,” said Dr. Morris, who worked in the agriculture department during the Clinton administration. “And when no one’s in charge, it doesn’t get done.”

John Glisson, the director of research programs at the U.S. Poultry and Egg Association, an industry group, said in an e-mail reply to questions that poultry feed mills “keep detailed records of antibiotic usage in the feed they manufacture.” The F.D.A. “has the authority to inspect and audit these records,” he said, adding that the agency “can have access to these records anytime.”

But regulators say that in reality, access is not easy. While they may have authority to look at the records from any food manufacturer, they cannot collect or publish the data.

Indeed, in July the National Pork Producers Council argued that its members should not be required to report on antibiotic prescriptions for their animals because it would add complexity.

Regulators say it is difficult even to check for compliance with existing rules. They have to look for the residue of misused or banned drugs in samples of meat from slaughterhouses and grocery stores, rather than directly monitoring use of antibiotics on farms. “We have all these producers saying, ‘Yes, of course we are following the law,’ but we have no way to verify that,” said Dr. Hansen, of Pew Charitable Trusts.

Dr. Flynn, the F.D.A. official, said the agency was moving as fast as it could to make sure antibiotics are used judiciously in farm animals. He called the plan to require animal producers to get prescriptions for certain antibiotics “an important shift.”